



No. 844	AUTHOR: Kristen D. Chodachek, Waterfowl Research Biologist TITLE: Migratory Gamebird Banding	DATE 10/20/03
-------------------	---	-------------------------

Abstract: During 2003, 2,101 Canada geese and 198 wood ducks were banded. In addition, 334 neck-collars were placed on Canada geese in 12 counties. Minimum banding goals for Canada geese were met, but minimum total banding goals for wood ducks, though increased from efforts in 2000, were below goal. However, the banding goal for juvenile male wood ducks was met. Banding and neck-collaring efforts should continue as a necessary tool in waterfowl management. State areas with banding quotas that are not participating in the banding effort should be provided with the necessary support and encouraged to band.

HISTORY

The banding program is a cooperative effort between states and the U.S. Fish and Wildlife Service. Banding is a research and management tool useful in determining migration, survival and population growth of waterfowl. Indiana strives to leg-band a minimum of 2,000 and neck collar a minimum of 200 giant Canada geese (*Branta canadensis maxima*) annually. In addition, Indiana attempts to band a minimum of 1,400 wood ducks (*Aix sponsa*) annually. Wood duck banding goals are consistent with the Wood Duck Population Monitoring Initiative goals.

METHODS

Indiana Division of Fish and Wildlife biologists and assistants capture and band resident waterfowl by the use of funnel traps, baited traps and other acceptable methods. Trapping and banding efforts are made across the state. Special efforts are made to apply neck-collars to Canada geese in St. Joseph, Allen, Marion, Vigo and adjacent counties. Wood duck banding quotas were assigned to the following Fish and Wildlife areas: Jasper-Pulaski, 93 immature females (IF), 66 adult females (AF), 66 immature males (IM) and 46 adult males (AM); Willow Slough, 58 IF, 41 AF, 41 IM and 29 AM; Winamac, 43 IF, 30 AF, 31 IM and 21 AM; Glendale, 53 IF, 38 AF, 38 IM and 26 AM; Hovey Lake, 72 IF, 51 AF, 51 IM and 36 AM; Kankakee, 27 IF, 19 AF, 20 IM and 14 AM.; Pigeon River, 72 IF, 51 AF, 51 IM and 36 AM; Tri-County, 62 IF, 44 AF, 44 IM and 31 AM; LaSalle (163 IF, 116 AF, 116 IM and 81 AM).

RESULTS

A total of 2,101 Canada geese were banded on state and private properties in Indiana and included 532 AM, 557 AF, 295 hatch year (HY) males, 372 HY females, 155 local (L) males, 184 L females, and 5 adults of unknown sex. The juvenile to adult age ratio was 0.92:1.0 and the male to female ratio was 0.88:1.0. Comparatively, the juvenile to adult age ratio was 1.2:1, 1.3:1, and 1.9:1 and in 2002, 2001, and 2000 respectively. A total of 334 neck-collars were applied to Canada geese in 12 counties (Table 1). Collars used in 2003 were white with black lettering and included the codes J0E1-J9E0, J0H1-J9H0, J0J1-J9J0, J0K1-J9K0. A total of 198 wood ducks at 4 state fish and wildlife areas were banded and included 36 AM, 29 AF, 54 HY males, 43 HY females, 23 L males, 10 L females, and 2 unknown sex class immature birds (Table 2).

DISCUSSION

The minimum banding goal for Canada geese was met in 2003. Neck-collaring efforts on Canada geese should continue and an improved observation network should be developed to continue neck-collar

observations. Collar observation data are necessary for the management of multiple populations of Canada geese.

Banding accomplishments for wood ducks were much improved for the years 2001 and 2002, however success fell in 2003 and 2002. The annual banding goal for wood ducks (1,400 minimum) has never been met, with the exception that the minimum goal for banding immature males (250) was met in 2001 with 269 banded. The number of adult wood ducks banded is grossly under goal and banders should attempt to locate sites that will result in more adult birds banded. This will likely require increased effort and keeping at least 2-3 trapping sites active to help identify where birds are most active (Dan Holm, *pers. comm.*). In addition, some state areas with banding quotas are not participating in the banding effort. Increased emphasis on the necessity of banding and more support should be provided to those areas to ensure their participation.

Table 1. Summary of 334 neck collared Canada geese banded in 2003.

Banding County	Collar Assignments ¹
Clay	J1E1, J1E2, J1E3, J1E5, J1E6, J2E0, J2E2, J3E2, J3E6, J4E0, J4E1, J4E4, J4E6, J4E9, J5E0, J6E0, J6E6, J6E8, J7E5, J7E6, J8E4, J8E5, J8E6, J9E1, J9E4
Greene	J0E5, J1E8, J1E9, J2E4, J4E3, J5E6, J5E8, J6E1, J7E9, J8E0, J8E1, J8E9, J9E3, J9E5, J9E6, J9E9, J0K0, J0K7, J0K8, J3K1, J4K4, J1K4, J7K9, J7K7, J8K1
Huntington	J0J0, J0J1, J0J3, J0J4, J0J5, J0J7, J0J8, J1J2, J1J5, J1J6, J1J7, J1J9, J2J1, J2J4, J2J8, J3J0, J3J1, J3J3, J3J4, J3J5, J3J7, J3J9, J4J0, J4J3, J4J5, J4J6, J4J8, J4J9, J5J0, J5J1, J5J2, J5J4, J6J0, J6J1, J6J6, J6J7, J6J8, J7J0, J7J2, J8J2, J8J4, J8J6, J8J7, J8J9, J9J1, J9J2, J9J3, J9J4, J9J5, J9J7, J9J9
Johnson	J0H3, J0H5, J1H4, J1H6, J2H7, J3H4, J3H9, J4H3, J4H4, J4H5, J4H8, J5H1, J6H7, J6H8, J7H0, J7H4, J7H6, J7H7, J7H9, J9H1, J9H7, J9H9
Marshall	J0J6, J0J9, J1J1, J1J3, J2J2, J2J3, J2J9, J3J2, J2J5, J4J2, J4J4, J4J7, J5J6, J5J7, J5J8, J5J9, J6J3, J6J4, J7J5, J7J6, J7J9, J8J1, J9J0, J9J6, J9J8
Miami	J0K2, J1K2, J1K5, J1K6, J1K8, J2K0, J2K4, J2K6, J3J6, J3K7, J3K9, J4K0, J4K5, J4K6, J5K5, J5K6, J5K9, J6K3, J6K4, J6K8, J7K3, J8K0, J8K8, J9K6, J9K8
Morgan	J0H1, J0H4, J0H9, J1H0, J1H1, J1H3, J1H7, J1H9, J2H3, J2H6, J2H8, J3H1, J3H2, J3H5, J3H8, J4H6, J5H0, J5H7, J5H9, J6H4, J6H6, J7H8, J8H1, J8H6, J9H3
Pulaski	J0H0, J6H1, J0J2, J1J0, J1J4, J1J8, J2J0, J2J6, J2J7, J3J6, J3J8, J4J1, J5J5, J5J3, J6J2, J6J5, J6J9, J7J1, J7J3, J7J4, J7J7, J7J8, J8J0, J8J3, J8J5, J8J8
Starke	J0H6, J0H7, J0H8, J1H5, J1H8, J2H1, J2H2, J2H4, J3H0, J3H3, J3H6, J4H1, J4H7, J4H9, J5H4, J5H5, J6H3, J7H1, J7H5, J8H2, J8H3, J8H4, J8H8, J8H9, J9H4
Sullivan	J0E0, J0E3, J0E6, J0E8, J0E9, J1E7, J2E1, J2E3, J2E7, J2E8, J3E0, J3E5, J3E7, J3E9, J4E2, J4E5, J4E8, J5E1, J5E2, J5E9, J6E4, J7E1, J7E8, J8E3, J8E7, J0H2
Vigo	J0E1, J0E2, J0E4, J0E7, J1E0, J1E4, J2E5, J2E6, J2E9, J3E1, J3E3, J3E4, J3E8, J4E7, J5E3, J5E4, J5E5, J5E7, J6E2, J6E3, J6E5, J6E7, J6E9, J7E0, J7E2, J7E3, J7E4, J7E7, J8E2, J8E8, J9E0, J9E2, J9E7, J9E8
Wells	J1H2, J2H0, J2H5, J2H9, J3H7, J4H0, J4H2, J5H2, J5H3, J5H6, J5H8, J6H0, J6H2, J6H5, J6H9, J7H2, J7H3, J8H0, J8H5, J8H7, J9H0, J9H2, J9H5, J9H6, J9H8

¹ Collars are white with black letters.

Table 2. Summary of wood duck banding accomplishments and respective banding quotas for 2003.

Banding Area (Fish and Wildlife Area)	Adult Female	Immature Female	Adult Male	Immature Male	Unknown Age
Glendale	----	---	----	---	---
Hovey Lake	6	23	4	26	----
Jasper-Pulaski	19	22	32	41	----
Kankakee	----	----	----	----	----
LaSalle	3	5	----	8	----
Pigeon River	----	----	----	----	----
Tri-County	1	3	----	2	2
Willow Slough	----	----	----	----	----
Winamac	----	----	----	----	----
Total	29 (350)¹	53 (450)	36 (350)	77 (250)	2

¹ Number in parentheses indicate quota assigned for each age and sex category.